

CLAIMS

What is claimed is:

- 1 1. A method comprising:
 - 2 receiving video data at an application program;
 - 3 transmitting the video data to one or more memory buffers
 - 4 decrypting the video data; and
 - 5 monitoring page table entries corresponding to the memory buffers to
 - 6 determine whether a second application program has accessed the memory
 - 7 buffers.
- 1 2. The method of claim 1 further comprising:
 - 2 the application program calling an interface upon receiving the video
 - 3 data;
 - 4 receiving the video data at the interface; and
 - 5 transmitting the video data to the memory buffers.
- 1 3. The method of claim 2 wherein the video data is stored at the memory
2 buffers in an encrypted format.
- 1 4. The method of claim 2 further comprising:
 - 2 transmitting the video data from the memory buffers to the interface;
 - 3 transmitting the video data from the interface to a decryption module; and
 - 4 decrypting the video data at the decryption module;

2019-04-20 14:20:00

1 5. The method of claim 4 further comprising verifying, at the decryption
2 module, a digital signature of the interface prior to decrypting the video data.

1 6. The method of claim 4 further comprising the decryption module
2 modifying the page table entries to clear access bits corresponding to the
3 memory buffers.

1 7. The method of claim 4 further comprising:
2 transmitting the decrypted video data to the interface; and
3 transmitting the decrypted video data from the interface to the video
4 decoder.

1 8. The method of claim 1 further comprising:
2 receiving a notification at the decryption module to terminate the
3 monitoring of the page table entries; and
4 terminating the monitoring of the page table entries.

1 9. A computer system comprising:
2 an application that receives data content;
3 a memory device that stores the data content;
4 a decoder that decodes the content; and
5 a decryption module that decrypts the data content, and monitors access
6 to the memory device to determine if memory buffers storing the data content
7 have been accessed prior to the decoding of the data content.

1 10. The computer system of claim 9 wherein the decryption module monitors
2 the memory buffers by observing the state of a corresponding access bit in the
3 memory device page table entries.

1 11. The computer system of claim 10 wherein the decryption module is
2 tamper resistant to prevent modification.

1 12. The computer system of claim 9 further comprising an interface coupled
2 to the application, the decoder and the decryption module.

1 13. The computer system of claim 12 wherein the interface receives the data
2 content in an encrypted format.

1 14. An article of manufacture including one or more computer readable
2 media that embody a program of instructions, wherein the program of
3 instructions, when executed by a processing unit, causes the processing unit to:
4 receive video data at an application program;
5 transmit the video data to one or more memory buffers
6 decrypt the video data; and
7 monitor page table entries corresponding to the memory buffers to
8 determine whether a second application program has accessed the memory
9 buffers.

1 15. The article of manufacture of claim 14, wherein the program of

20140429 15:44:20

2 instructions, when executed by a processing unit, further causes:
3 the application program to call an interface upon receiving the video data;
4 receiving the video data at the interface; and
5 transmitting the video data to the memory buffers.

1 16. The article of manufacture of claim 15 wherein the program of
2 instructions, when executed by a processing unit, further causes the processor:
3 transmit the video data from the memory buffers to the interface;
4 transmit the video data from the interface to a decryption module; and
5 decrypt the video data at the decryption module;

1 17. The article of manufacture of claim 16 wherein the program of
2 instructions, when executed by a processing unit, further causes the processor to
3 verify, at the decryption module, a digital signature of the interface prior to
4 decrypting the video data.

1 18. The article of manufacture of claim 16 wherein the program of
2 instructions, when executed by a processing unit, further causes the decryption
3 module to modify the page table entries to clear access bits corresponding to the
4 memory buffers.

1 19. The article of manufacture of claim 16 wherein the program of
2 instructions, when executed by a processing unit, causes the processor to:
3 transmit the decrypted video data to the interface; and

4 transmit the decrypted video data from the interface to the video decoder.

1 20. The article of manufacture of claim 14 , wherein the program of
2 instructions, when executed by a processing unit, further causes the processor to:
3 receive a notification at the decryption module to terminate the
4 monitoring of the page table entries; and
5 terminate the monitoring of the page table entries.

2017-08-15 15:42:00